



Facts About Noise-Induced Hearing Loss

Approximately 36 million Americans have hearing loss. One in three developed their hearing loss as a result of exposure to noise.

- Noise-induced hearing loss is caused by damage to the hair cells that are found in the inner ear. Hair cells are small sensory cells that convert the sounds we hear (sound energy) into electrical signals that travel to the brain. Once damaged, hair cells cannot grow back, causing permanent hearing loss.
- Hearing protection decreases the intensity, or loudness, of noise and helps preserve your hearing.
- Harmful sounds are (1) too loud and last too long or (2) are very loud and sudden.
- For example, exposure to a one-time intense “impulse” sound such as a gunshot or sound check feedback, or continuous exposure to loud sounds over an extended period of time, such as a concert (rock, country, symphony, or any genre of music) or stadium sporting event, may be harmful.
- You may encounter harmful sounds at work, at home, and during recreational activities. If you work in a hazardous noise environment (bar, night club, recording studio, concert venue) contact **Doctor Decibel** about OSHA and NIOSH recommendations specific to your amount of noise exposure.
- **Noise is Dangerous if...**
 - You have to shout over background noise to be heard
 - The noise is painful to your ears
 - The noise makes your ears ring
 - You have decreased or “muffled” hearing for several hours after exposure - a temporary threshold shift.
- **The loudness of sound is measured in units called decibels (dB). Noise-induced hearing loss can be caused by prolonged exposure to any loud noise over 85 dB.**
 - 60 dB -- Normal conversations or dishwashers
 - 80 dB -- Alarm clocks
 - 90 dB -- Hair dryer, blender, lawn mower
 - 100 dB -- MP3 players at full volume
 - 110 dB -- Concerts, racing and sporting events
 - 120 dB -- Jet planes at take off
 - 130 dB -- Ambulance and fire engine sirens
 - 140 dB -- Gun shot, fireworks
- **Protect your hearing by...**
 - Wearing hearing protection when around sounds louder than 85 dB for a long period of time. There are different types of hearing protection for musicians and sound engineers such as foam earplugs and custom musician earplugs. Custom silicone in-ear monitors can also be protective.
 - Turning down the volume when listening to the radio, the TV, MP3 player or anything through ear buds and headphones.
 - Walking away from noise.
 - Contact **Doctor Decibel** for custom hearing protection devices and for annual hearing evaluations.
- NIOSH noise exposure limits (www.cdc.gov/niosh)

85 dB -- 8 hours	100 dB -- 15 minutes
91 dB -- 2 hours	105 dB -- 4 minutes
94 dB -- 1 hour	110 dB -- 1 minute

For more information on hearing loss, visit www.howsyourhearing.org/hearingloss.html